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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,145	04/18/2006	Thomas Ernst	289925US6PCT	5646

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
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ALEXANDRIA, VA 22314

EXAMINER	
ABOULFAIDA, AMBER	

ART UNIT	PAPER NUMBER
2891	

NOTIFICATION DATE	DELIVERY MODE
09/07/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/576,145

Applicant(s)

ERNST ET AL

Examiner

Amber V. Aboulfaida

Art Unit

2891

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, and 17-20 is/are rejected.
- 7) ☒ Claim(s) 4-16, and 21-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/13/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. Claims 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26 and 27 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims listed above have not been further treated on the merits.

3. The disclosure is objected to because of the following informalities: [0010] "The [sic: bars 202].

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Orlowski '700.

a. Re claim 1, Orlowski shows a field-effect microelectronic device (See e.g. Fig. 9), including: a substrate (12), at least one structure forming one or more channels (16, 18, 20, 22, 24) capable of connecting, in the direction of their lengths, one or more sources and one or more drains (See e.g. Fig. 9) which structure is formed by a stack, in a direction orthogonal to a main plane of the substrate, at least two bars have different widths producing a serrated profile (16 and 18, See e.g. Fig. 9).

b. Re claim 2, Orlowski shows the profile of the structure being a crenellated profile (16, 18, and 20; See e.g. Fig. 9)

c. Re claim 3, Orlowski shows the stack includes at least two successive bars based on different materials (Col. 2, ln. 44-61)

d. Re claim 17, Orlowski shows a field-effect microelectronic device (See e.g. Fig. 9), including: a substrate (12), at least one structure forming one or more channels (16, 18, 20, 22, 24) capable of connecting, in the direction of their lengths, a single source and a single drain (See e.g. Fig. 9) which structure is formed by a stack, in a direction

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orthogonal to a main plane of the substrate, at least two bars based on different materials and have different widths (Col. 2, ln. 44-61; See e.g. Fig. 9).

e. Re claim 18, Orłowski shows a method of producing a field-effect microelectronic device equipped with at least one structure comprising at least two stacked bars (16, 18) of different widths (See e.g. Fig. 9), capable of forming one or more transistor channels (72), characterized in that the method includes the steps of: forming, on a substrate (12), a stack of a plurality of layers comprising at least two successive layers (16, 18) based on different materials (Col. 2, ln. 44-61), forming at least one mask (26) on the stack, etching the layers through the mask (Col. 3, ln. 35-37), partial and selective etching of layers in the stack (Col. 3, ln. 50-53).

f. Re claim 19, Orłowski shows the stack including at least two layers based on different semiconductor materials (Col. 2, ln. 44-61).

g. Re claim 20, Orłowski shows the stack including at least on Si-based layer and at least one SiGe-based layer (Col. 2, ln. 38-43).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yu '890 and Yeo '415 both teach a channel with different widths.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amber V. Aboulfaida whose telephone number is (571)-270-1558. The examiner can normally be reached on Monday through Friday 7:30 AM - 5:00 PM E.S.T..


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A.A.

August 24, 2007


B. WILLIAM BAUMEISTER
SUPERVISORY PATENT EXAMINER
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